

## MATERIAL SAFETY DATA SHEET TERRA XPS

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

|                           |   |   |
|---------------------------|---|---|
| Trade name                | * | Terra XPS   |
| Company                   | * | DSM Thermoplastic Elastomers B.V.<br>Oude Postbaan 5, 6160 AP Geleen<br>P.O. Box 43, 6130 AA Sittard<br>The Netherlands |
| Information telephone no. | * | +(31) 46 4773362  |
| Information fax no.       | * | +(31) 46 4761050  |
| Emergency telephone no.   | * | +(31) 46 4765555  |

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

|  |   |   |
|--|---|---|
| Principal components                       | * | Polyolefin Elastomer Blends.                      |
| CAS Registry Numbers                       | * | Proprietary blends. Not identified by CAS number. |
| Components presenting a significant hazard | * | None  |

### 3. HAZARDS IDENTIFICATION

|       |   |   |
|-------|---|---|
| Risks | * | Terra XPS covered by this MSDS is not considered to be a dangerous material (1999/45/EC). |
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### 4. FIRST AID MEASURES

#### Routes of entry

##### Inhalation

- |   |  |
|---|--|
| * | Negligible hazard at ambient temperatures. Inhalation of fine particles of dust may cause mild irritation. Exposure to vapours released at high extrusion and moulding temperatures may cause irritation to the respiratory tract. If respiratory irritation occurs, remove affected personnel from the work area into fresh air. Obtain medical attention if irritation persists. |
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##### Ingestion

- |   |   |
|---|---|
| * | No known health hazard appears to be posed by the ingestion of small amounts of this material. The material is inert and not digestible. A physician should be consulted if large amounts are ingested. |
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|                     |   |   |
|---------------------|---|---|
| <b>Eye contact</b>  | * | Irritation may result from the physical presence of any particles in the eye. Flush with plenty of clear water. Contact a physician. Vapours produced during extrusion and moulding may cause slight eye irritation. In case of contact with molten material: immediate cool the affected area by large amounts of water or ice, consult a physician. |
| <b>Skin contact</b> | * | Contact with molten alloy will burn unprotected skin. Cool immediately and obtain, if necessary, medical assistance. Do not remove molten product from burned skin. This should be done by a physician.   |
|                     | * | If regrinding operations occur, protective coveralls with long sleeves, gloves and safety glasses should be worn. In case of skin contact: wash the contaminated areas with water and soap.   |

## **5. FIRE-FIGHTING MEASURES**

|  |   |   |
|--|---|---|
| <b>Extinguishing media</b>             | * | Water spray, foam, powder or CO <sub>2</sub> .  |
| <b>Special Firefighting Procedures</b> | * | Full emergency equipment with self-contained breathing apparatus should be worn to protect fire fighters from any hazardous decomposition or combustion products. |
| <b>Specific Hazards</b>                | * | In case of fire appreciable quantities of carbon monoxide are released in combination with irritating and/or toxic substances                                     |

## **6. ACCIDENTAL RELEASE MEASURES**

|  |   |  |
|--|---|--|
| <b>Steps to be taken in case material is released or spilled</b> | * | A slipping hazard may be created if the material is spilled. Repackage uncontaminated product. Contaminated material should be collected (prevent fine dust formation) and handled as an inert material. |
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## **7. HANDLING AND STORAGE**

|                 |   |   |
|-----------------|---|---|
| <b>Storage</b>  | * | The material should be stored in a cool place, and away from direct light and ignition sources.   |
| <b>Handling</b> | * | Normal industrial hygiene procedures should be followed.<br>Small amounts of fines or dust may be formed from pelletised product impacting with material handling systems. If permitted to accumulate, these fines or dusts can, under certain conditions, pose an explosion hazard. Every effort should be made to prevent the suspension, concentration or accumulation of fines or dusts in or around material handling systems. |

Equipment and conveying lines must be well grounded to eliminate any build-up of static electricity. House-keeping practices must keep dust levels under control. Eliminate ignition sources in dustprone areas.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

|  |   |  |
|--|---|--|
| <b>General measures</b>                | * | Provide local and general ventilation to ensure airborne dusts and process vapours remain below occupational exposure limits. Ventilation systems must be designed in accordance with applicable engineering standards. Cool molten waste material with water. |
| <b>Respiratory protection</b>          | * | No special precautions under normal conditions. The use of respiratory protection is recommended when airborne dust concentrations or decomposition products during processing cannot be adequately controlled by ventilation.                                 |
| <b>Eye protection</b>                  | * | Safety glasses with side shields should be worn.   |
| <b>Hand protection</b>                 | * | Material can be handled without the use of gloves or other protective equipment at normal temperatures. Heat resistant gloves should be worn when handling molten product.   |
| <b>Skin and body protection</b>        | * | Protective coveralls with long sleeves, gloves and safety glasses should be worn (worker's outfit) during handling of the product.   |
| <b>Environmental exposure controls</b> | * | Make sure that the concentration of organic volatile substances respect the local emission limits.   |

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

|                                  |   |   |
|----------------------------------|---|---|
| <b>Physical state</b>            | * | solid   |
| <b>Appearance</b>                | * | solid cylindric pellets (colour according to request)                     |
| <b>Odour</b>                     | * | characteristic  |
| <b>Specific gravity</b>          | * | 1.40 - 1.60 g/cm <sup>3</sup>   |
| <b>Softening point</b>           | * | ca. 80 °C   |
| <b>Decomposition temperature</b> | * | > 300 °C  |
| <b>Flashpoint</b>                | * | not applicable  |
| <b>Explosion properties</b>      | * | the material as such is not explosive. For dust explosions see section 7. |
| <b>Solubility in water</b>       | * | insoluble   |

## **10. STABILITY AND REACTIVITY**

|  |   |   |
|--|---|---|
| <b>Stability</b>                             | * | Stable  |
| <b>Conditions to avoid</b>                   | * | Temperatures over 300 °C may cause degradation. Do not heat product over the decomposition temperature.   |
| <b>Hazardous decomposition or byproducts</b> | * | At processing temperature some degree of thermal degradation will occur. Although it is highly dependent on temperature and environmental conditions, traces of a variety of toxic and/or irritating gases can be released. |

## **11. TOXICOLOGICAL INFORMATION**

|   |   |  |
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| <b>Health hazards (acute and chronic)</b> | * | No written specific information on the product is available. According to experience the product poses no health hazard provided it is handled and used in accordance with good industrial hygiene and the provided indications. |
| <b>Signs and symptoms of exposure</b>     | * | Harmless at ambient temperatures. During processing see section 4.   |

## **12. ECOLOGICAL INFORMATION**

|                          |   |   |
|--------------------------|---|---|
| <b>Bio-degradability</b> | * | Terra XPS is not bio-degradable.                                      |
| <b>Mobility</b>          | * | The material is considered inert, no dangerous diffusion is expected. |

## **13. DISPOSAL CONSIDERATIONS**

|                       |   |   |
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| <b>Waste disposal</b> | * | Incineration or controlled deposit on a landfill, both in accordance with state and local regulations. Be aware of combustion products which may be produced during incineration. |
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## **14. TRANSPORT INFORMATION**

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|-----------------------|---|--|
| <b>Classification</b> | * | Terra XPS is a polymeric material, not classified as dangerous.<br>No special precautions during transport need to be taken. |
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## **15. REGULATORY INFORMATION**

|                |   |  |
|----------------|---|--|
| <b>EEC</b>     | * | Health hazard classification according to 67/548/EEC and 1999/45/EC: no hazards.                   |
| <b>General</b> | * | Compliance with other federal, state and local safety regulations should be examined individually. |

## **16. OTHER INFORMATION**

|                      |   |  |
|----------------------|---|--|
| <b>Date of issue</b> | * | January 2005   |
| <b>General</b>       | * | This Material Safety Data Sheet (MSDS) has been drawn up according to EC-directive 2001/58/EC. |

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